

Service Innovation, Public Information Systems and Institutional Responsiveness to Trust through Public Perception as Mediation at the Class II Non-TPI Palopo Immigration Office

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Abstract

Public trust is an important indicator in assessing the legitimacy and effectiveness of government agency services. In the context of bureaucratic reform, efforts to increase public trust require optimizing service innovation, information system transparency, and agency responsiveness in serving the public. This study aims to analyze the influence of service innovation, public information systems, and agency responsiveness on public trust, with public perception as a mediating variable. The study was conducted at the Class II Non-TPI Palopo Immigration Office using a quantitative approach and explanatory research method. The Immigration Office is a strategic agency that is directly in contact with cross-regional and cross-country administrative services, prioritizing transparency, speed, and integrity of service. A total of 91 respondents were selected through a simple random sampling technique. Data were collected through a Likert questionnaire and analyzed using the Structural Equation Modeling-Partial Least Square (SEM-PLS) method. The analysis components include outer model and inner model analysis. The results of this study indicate that service innovation, public information systems, and agency responsiveness directly contribute significantly to increasing public trust in the Class II Non-TPI Palopo Immigration Office. In addition, public perception is proven to have a role as a significant mediating variable. Thus, the presence of adaptive service innovation, transparent and easily accessible information systems, and proactive agency responsiveness in responding to community needs are key factors that constructively shape positive public perceptions of the quality of an agency's services.

Keywords: Service_Innovation; Perception; Information_Systems; Responsiveness

1. Introduction

Quality public services are a crucial foundation and pillar in building legitimacy and public trust in government institutions. Service innovation and the utilization of public information systems are key strategies for increasing efficiency, accountability, and transparency [1]. Public service innovation encompasses a variety of approaches, from digitizing service processes and changing bureaucratic procedures to strengthening technology-based governance that adapts to public needs. Utilizing public information systems, on the other hand, enables data integration, accelerated service delivery, and facilitates public access to relevant information [2]. The success of this transformation depends not only on technical aspects, but also on institutional readiness, organizational culture, and strong change management [3].

Innovation or information systems alone are not enough to improve the success of public services. Beyond these two factors, a high level of agency responsiveness to public needs and aspirations is also required. Responsiveness refers to the ability and willingness of public agencies to respond to complaints, requests for information, and community dynamics quickly, accurately, and in accordance with public expectations. Previous research has shown that high levels of

responsiveness have been shown to strengthen positive public perceptions and build trust in public institutions [4]. Public trust in public institutions is a crucial social asset supporting policy legitimacy and the success of bureaucratic reform, including the implementation of service innovation. Therefore, an integrative study is needed to analyze the relationship between innovation, information systems, responsiveness, and public trust.

Furthermore, one relevant approach to understanding this relationship is through the mediating variable of public perception. Public perception of service quality, ease of access to information, and agency responsiveness can mediate the influence of innovation on levels of trust. This is considered important because even if an agency has implemented various innovations and digitalization efforts, a positive public perception is also needed. This is to achieve the ultimate goal of increasing trust [5]. This shows that public perception plays a strategic role in bridging innovation and desired social outcomes.

The Class II Non-TPI Palopo Immigration Office, as a public service agency in the immigration sector, plays a crucial role in providing excellent service to the public. Digital transformation and the implementation of service innovations at the immigration office must consistently prioritize transparency, accountability, and responsiveness. The public, as service users, assesses service quality not only by the final outcome but also by the process and the service experience, even down to the level of satisfaction [6]. Therefore, this study aims to analyze the influence of service innovation, public information systems, and agency responsiveness on public trust, with public perception as a mediating variable, in the context of immigration services at the Class II Non TPI Palopo Immigration Office.

2. Methodology

This study uses a quantitative approach with an explanatory research type, which aims to explain the causal relationship between the variables studied. The independent variables in this study are service innovation, public information systems and agency responsiveness. The mediating variable is public perception. While the dependent variable is public trust in agencies. The analysis method used is Structural Equation Modeling with the Partial Least Square (SEM-PLS) approach to test complex structural models with variables. The population in this study is all people who use immigration services at the Class II Non-TPI Palopo Immigration Office during the study period, namely from June to August 2025. Based on data from the Class II Non-TPI Palopo Immigration Office, the average number of visitors per 3 months reaches 800-1000 people who access various types of immigration services. Data were collected through a questionnaire with a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

Questionnaires were distributed directly to respondents at the Class II Non-TPI Palopo Immigration Office during service operating hours. The sampling technique used simple random sampling with a population of 1000 people. The determination of sample size refers to the Slovin formula with a 95% confidence level ($\alpha = 0.05$) and a margin of error of 10%, so that a minimum sample size of 91 respondents is obtained. Based on the conceptual framework built, the hypothesis of this study is as follows: Service Innovation has a Positive Effect on Public Trust; Public

Information Systems have a Positive Effect on Public Trust; Agency Responsiveness has a Positive Effect on Public Trust; Service Innovation has a Positive Effect on Public Perception; Public Information Systems have a Positive Effect on Public Perception; Agency Responsiveness has a Positive Effect on Public Perception; Public Perception has a Positive Effect on Public Trust; Service Innovation has a Positive Effect on Public Trust through Public Perception; Public Information Systems have a Positive Effect on Public Trust through Public Perception; Agency Responsiveness has a Positive Effect on Public Trust.

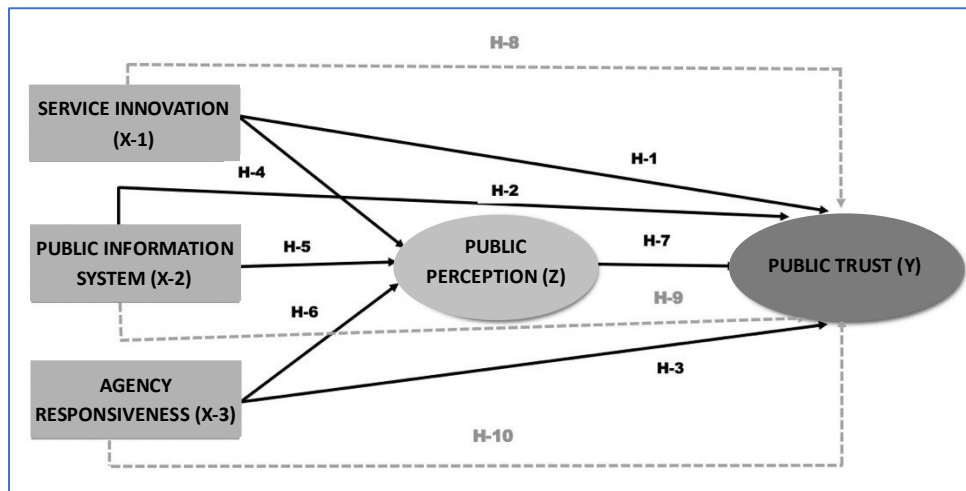


Figure 1. Research Concept Framework

The data analysis technique uses SEM-PLS with the help of SmartPLS software. The analysis stages include: Outer Model Analysis (Convergent Validity Test and Reliability Test (Cronbach's Alpha > 0.7, Composite Reliability > 0.7). Next, Inner Model Analysis is carried out (R-Square Test to measure the model's predictive ability, Path Coefficient Test to test the hypothesis and Indirect Effect Test to test the mediation effect. Finally, the Conclusion is presented through the results of the Hypothesis test by looking at the t-statistic and p-value. The hypothesis is accepted if the t-statistic > 1.96 and p-value < 0.05 at a significance level of 5%).

3. Results and Discussion

3.1 Results

Based on the data collected from all respondents, the following description of the respondent characteristics was obtained

Table 1. Respondent Description

Characteristics	Frequency	Percentage
Gender		
Man	72	79.12%
Woman	19	20.88%
Age		
>20 years	26	28.57%
20-30 years	30	32.97%

31-40 years	19	20.88%
41-50 years	16	17.58%
Education		
High School/Vocational School	35	38.46%
Diploma	19	20.88%
S1	32	35.16%
S2	5	5.49%
Type of Service		
Passport	74	81.32%
Foreigners	1	1.10%
Other	16	17.58%

Based on the table above, the number of male respondents (79.12%) is greater than the number of female respondents (20.88%). The age group dominated by those aged 20-30 (32.97%). In terms of education, high school/vocational school graduates dominated (38.46%). Passport services were the dominant type, accounting for 81.32%.

Convergent Validity Test

The results of the outer model analysis show that all indicators have a loading factor > 0.7, indicating good convergent validity.

Table 2. Variable Factor Loadings

Analysis	Service Innovation				Public Information System				Agency Responsiveness			
	X1.1	X1.2	X1.3	X1.4	X2.1	X2.2	X2.3	X2.4	X3.1	X3.2	X3.3	X3.4
Loading Factor	0.736	0.772	0.763	0.817	0.849	0.857	0.829	0.817	0.844	0.884	0.857	0.764
Status	VALID				VALID				VALID			
	Public Perception				Public Trust							
	Z1	Z2	Z3	Z4	Y1	Y2	Y3	Y4	Y5			
	0.847	0.850	0.873	0.778	0.878	0.831	0.785	0.905	0.816			
	VALID				VALID							

Table 2 shows that all variables were deemed valid in the convergent validity test (>0.70). This indicates that the data obtained were consistent, had minimal bias, and could accurately describe the research results.

Reliability Test

Based on the table below, all variables show Cronbach's Alpha and Composite Reliability values > 0.7 and AVE > 0.5 , indicating that the research instrument is reliable and valid.

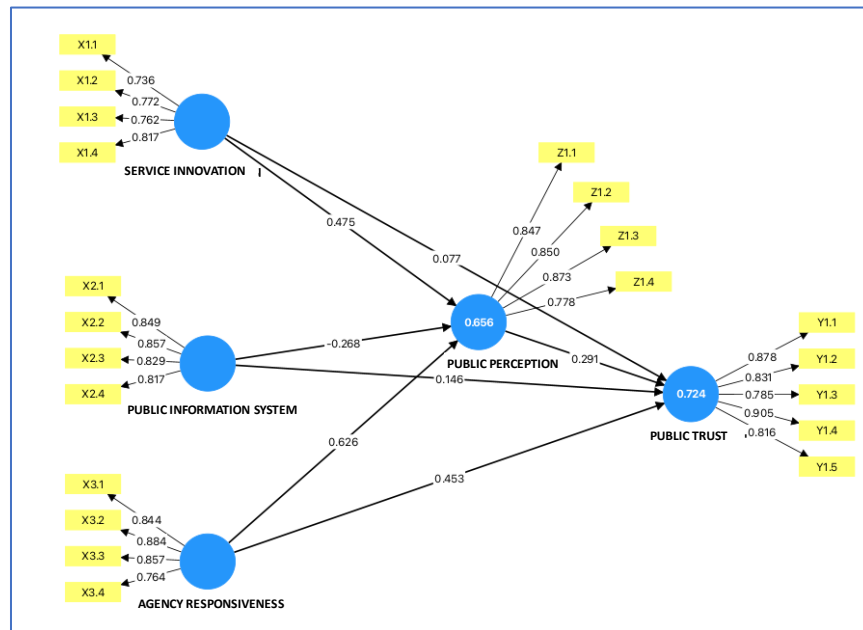
Table 3. Reliability Test Results

Variables	Cronbach's Alpha	Composite Reliability	AVE	Status
Service Innovation	0.776	0.787	0.597	Reliable
Public Trust	0.899	0.902	0.713	Reliable
Public Perception	0.858	0.863	0.702	Reliable
Agency Responsiveness	0.860	0.875	0.704	Reliable
Public Information System	0.859	0.864	0.703	Reliable

Inner Model Analysis

The following is a conceptual framework for the research which is also a graphical display of the SEM model.

Figure 2. SEM Model



R-square test

The R-Square value shows that the model is able to explain 72.4% of the variance in public trust and 65.6% of the variance in public perception.

Table 4. R-square value

Variables	R-square	R-square adjusted
Public Trust	0.724	0.711
Public Perception	0.656	0.644

Hypothesis Testing

a. Direct Effect Hypothesis Test

Table 5. Results of the Direct Effect Hypothesis Test

Hypothesis	Variables	T-Statistics	P-value	Results
H1	Service Innovation -> Public Trust	1,968	0.030	Accepted
H2	Public Information System -> Public Trust	1,966	0.048	Accepted
H3	Agency Responsiveness -> Public Trust	3,209	0.002	Accepted
H4	Service Innovation -> Public Perception	4,946	0.000	Accepted
H5	Public Information System -> Public Perception	2,646	0.009	Accepted
H6	Agency Responsiveness -> Public Perception	7,339	0.000	Accepted
H7	Public Perception -> Public Trust	2,257	0.026	Accepted

Based on this table, all variables are proven to have a direct influence on public trust and public perception.

b. Indirect Effect Hypothesis Test

Table 6. Results of the Indirect Effect Hypothesis Test (Mediation)

Hypothesis	Variables	T-Statistics	P-value	Results
H8	Service Innovation -> Public Perception -> Public Trust	2,293	0.024	Accepted
H9	Public Information System -> Public Perception -> Public Trust	2,000	0.048	Accepted
H10	Agency Responsiveness -> Public Perception -> Public Trust	1,968	0.042	Accepted

Based on the table above, all indirect influence test results for each variable were proven to be effective. Therefore, public perception successfully mediated the variables of service innovation, public information systems, and agency responsiveness in increasing public trust and satisfaction.

3.2 Discussion

The Influence of Service Innovation, Public Information Systems, and Agency Responsiveness on Public Trust

The results of this study indicate that service innovation has a positive influence on public trust at the Class II Non-TPI Palopo Immigration Office. This finding aligns with the literature, which states that innovation in public services can improve efficiency, effectiveness, and public satisfaction. This ultimately strengthens trust in government agencies. Innovations such as digital-based services, online queuing systems, and streamlined bureaucratic processes not only speed up processes but also provide a more transparent and predictable service experience [7]. The success of public service innovation also depends heavily on technological support and organizational readiness[8]. Other research also emphasizes the importance of continuous innovation in order to maintain the level of public trust in local government services [9].

In addition, the public information system plays an important role as a bridge in delivering innovative services[10]. The existence of a reliable information system allows the public to access service information and monitor the status of immigration service applications. The results of this study indicate that the public information system implemented at the Palopo Class II Non-TPI Immigration Office has supported information transparency and increased perceptions of agency accountability. Other relevant research also shows that technology-based information transparency improves perceptions of fairness and accountability of public institutions. Furthermore, an effective and integrated information system can increase public participation and strengthen the legitimacy of service institutions [11].

The ability to respond quickly and accurately to public needs, complaints, and inquiries is a sign of an agency's responsiveness. This has proven to be a crucial factor in building public trust. At the Palopo Class II Non-TPI Immigration Office, responsive complaint mechanisms, information services, and follow-up are in place. This creates the impression that the institution is proactive and solution-oriented. This reinforces findings from other studies that suggest responsiveness creates the perception that the government is present and concerned about its citizens. A high level of responsiveness can also significantly contribute to improving the image of public agencies and increasing public satisfaction [12]. In addition, the speed and accuracy of an institution's response to public complaints are important factors in building public loyalty and trust [13].

Service innovation, the use of public information systems, and agency responsiveness are interconnected and inseparable elements, as they simultaneously strengthen the process of building public trust. Good service innovation will be optimal if supported by an adequate public information system and strengthened by the responsiveness of officers in service delivery. Therefore, public trust can be built through a holistic approach that integrates these three variables into public service policies. This aligns with the integrative model of public trust, which emphasizes the importance of synergy between technology, service processes, and human capital in building public trust [14]. Consistent, innovative, and responsive service, along with transparency of information, can be the key to successfully and sustainably increasing public trust.

The Influence of Service Innovation, Public Information Systems, and Agency Responsiveness on Public Perception

Research at the Palopo Class II Non-TPI Immigration Office shows that positive public perception can be influenced by service innovation, public information systems, and agency responsiveness. These findings not only support modern public service theories but also demonstrate that government institutions that successfully implement digital transformation and good governance principles are able to increase legitimacy and public trust. In the context of bureaucratic reform, this is highly relevant because public perception is shaped not only by the final results of services but also by processes that are transparent, participatory, and adaptive to community needs. Efforts to improve the effectiveness of public institutions require the role of service innovation as a key catalyst. Innovation is not limited to the use of technology but also includes changes in work culture, improvements in internal procedures, and a more humanistic approach to interactions with the public. The implementation of e-government systems, mobile applications, and online platforms has been shown to accelerate service processes and increase community engagement, which directly impacts positive public perception of government institutions [15]. This innovation enables an agency's bureaucracy to be more responsive and adaptive to evolving social dynamics.

An integrated and transparent public information system also strengthens positive public perception. Open information allows the public to independently access service data, reduces information gaps, and promotes accountability. In today's digital era, the public tends to judge service quality based on the speed and clarity of information delivered by agencies. The quality of public information delivered through social media and digital platforms significantly influences public intention to use e-government services and their perception of government responsiveness [16]. This demonstrates that the Palopo Class II Non-TPI Immigration Office has successfully established an open information system and ultimately contributed to the formation of positive public perception.

In addition to innovation in public services and information systems, agency responsiveness to public needs is also essential. High agency responsiveness reflects an institution's commitment to excellent service and a user-centered approach to governance. Perceived value of innovative services and stakeholder engagement are important mediating variables between innovation and improved e-government performance [17]. The success of the Palopo Class II Non-TPI Immigration Office in establishing a responsive public complaints system and two-way communication channels has increased public trust and strengthened relations between the government and citizens, according to the results of this study.

Referring to the various relevant research findings above, it can be concluded that public service quality should not be developed only partially or sectorally. A comprehensive and holistic approach is needed, prioritizing the integration of innovation, information transparency, and adaptive governance that is responsive to public needs. These three elements form an adaptive, accountable, and inclusive public service ecosystem.

Mediation of Service Innovation on Public Trust through Public Perception

Innovation in public services not only serves to increase efficiency but is also a crucial element in shaping public perception of the quality and integrity of government institutions. Changes in innovative service delivery, such as process digitization, the use of applications, or the reduction of manual bureaucratic practices, can directly improve user experience. However, the impact of innovation on public trust is not entirely direct; it is influenced by the public's perception of the change. This means that the success of service innovation in building public trust is largely determined by how the public perceives the benefits, accessibility, and fairness of the innovation. Innovation in public services that utilizes digital technology can improve public perception of an institution's efficiency and professionalism, especially if the innovation meets the five attributes of the Diffusion of Innovation Theory, including: relative advantage, connectedness, complexity, trial, and observability. Public perception of an innovation, as well as a sense of being valued as a citizen, can ultimately increase trust in service providers.[18].

Furthermore, public perception serves as a psychological link between implemented policies and public responses. The results of this study demonstrate the success of public perception in mediating service innovation in increasing public trust. Although innovation is a crucial and important strategy, public perception is a crucial variable in determining the success of such innovation, particularly regarding increasing trust in the government. Therefore, to maximize the effects of innovation in services, public institutions need to design communication strategies that can strengthen positive views through education, community involvement, and transparency in the service innovation process.

Mediation of Public Information Systems on Public Trust through Public Perception

Public information systems are a strategic instrument in supporting transparent and accountable governance. In the context of building public trust, the presence of open, technology-based information systems does not automatically result in increased public trust in public institutions. Instead, the influence of public information systems on public trust can be indirect and significantly mediated by public perceptions of the quality, relevance, and inclusiveness of the information provided. The level of openness of an agency or government has a positive relationship with public trust, but this relationship is mediated by individual perceptions of the community's democratic capacity [5]. Especially when the public has participatory space in the governance process. This study shows that information transparency that is not accompanied by a perception of community involvement and empowerment will only have a limited effect on public trust [19].

This is similar to research on the quality of data, systems, and services within the Open Government Data platform, which demonstrated a positive influence on public trust. However, this influence is effectively realized when the public has a positive perception of the accessibility, accuracy, and usability of the information system. This suggests that trust is not formed solely by the presence of technology, but rather through the public's subjective interpretation of the system's functionality in fulfilling the public's right to information [20]. Conceptually, public perception can

be positioned as a significant intervening or mediating variable in bridging the relationship between public information systems and the level of public trust.

Mediation of Agency Responsiveness to Public Trust through Public Perception

Building public trust requires responsiveness from public agencies, particularly in responding to the needs, aspirations, and feedback of the public. However, the influence of responsiveness on trust is not always direct. Public perception of the quality of responsiveness also plays a crucial role as a mediator in determining the effectiveness of the relationship. A study of the context in which an agency responds to services through online communication significantly impacts the level of public trust. This research shows that public trust is influenced by public perception of the government's responsiveness to digital interactions [21].

The OECD also revealed that public perception of the responsiveness of a public institution is a key dimension of external political efficacy. External political efficacy is the belief that the voices and needs of the public are meaningfully considered in public decision-making. This perception directly correlates with the level of trust in government institutions, particularly in public service sectors such as education, health, and justice [4].

4. Conclusion

Based on the results of this study, it can be concluded that service innovation, public information systems, and agency responsiveness have a significant direct influence on increasing public trust in the Palopo Class II Non-TPI Immigration Office. In addition to this direct influence, public perception acts as a mediating variable that strengthens the relationship between service quality and public trust. This shows that public trust is not only formed by the technical and structural aspects of public services, but also when the public perceives the transparency, adaptability, and concern of the agency for their needs. Therefore, strategies to increase public trust need to focus on the integration of sustainable innovation, open information management, and increased responsive capacity, all of which are communicated effectively to shape positive public perceptions, especially towards a public agency.

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